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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,128	02/06/2006	Samuel Boutin	273912US2XPCT	2712
22850 7590 01/04/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BHAT, ADITYA S	
			ART UNIT 2863	PAPER NUMBER
			NOTIFICATION DATE 01/04/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/539,128	Applicant(s) BOUTIN, SAMUEL	
	Examiner Aditya S. Bhat	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/6/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/6/06 7/18/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status

1. Claims 12-23 are currently pending.

Specification

2. The disclosure is objected to because of the following informalities: The specification is not properly formatted. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

Information Disclosure Statement

3. The information disclosure statement(s) (IDS) submitted on 2/06/2006 & 7/18/2005 have been received. The submission is in compliance with the provisions of 37 CFR 1.97 and 37 CFR 1.98. Accordingly, the information disclosure statement(s) have being considered by the examiner.

Priority

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

5. The drawings submitted on 2/06/2006 are in compliance with 37 CFR § 1.81 and 37 CFR § 1.83 and have been accepted by the examiner.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 12-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirane et al. (USPN 6,161,071).

With regards to claim 12, Shirane et al. (USPN 6,161,071) teaches a method for diagnosing (52) functional faults of a functional architecture composed of a set of

functions associated with electronic components that produce and consume data, at least one of the data being able to assume a predetermined particular value following development of a functional fault of at least one of the electronic components of the set, the method, given a set of functions that performs a service, wherein input and output data can be associated with sensors(4) or actuators(3), comprising:

i) determining particular values, during which particular values corresponding to functional faults of the sensors(4) and actuators(3) are listed; (Col.12, lines 62-64)

ii) determining propagation, during which particular values that permit propagation of an information stream relating to defects across the functions are listed; (Col. 13, lines 1-5)

iii) diagnosis, during which a functional diagnosis of the service as a function of the lists obtained from the determining i) and ii) are formed; (Col. 13, lines 7-20)and

iv) recording the particular values and their propagation on a memory device for a tool provided for validation of the architecture. (Col. 13, lines 33-35)

With regards to claim 13, Shirane et al. (USPN 6,161,071) teaches after the diagnosis (iii), a hardware architecture composed of calculators, networks, signal lines, and connectors and mapping of functions onto the hardware architecture, the particular values are listed according to the method, to deduce an operational diagnosis of the resulting electronic architecture. (fig 12& 16)

With regards to claim 14, Shirane et al. (USPN 6,161,071) teaches a the particular values are classified after mapping of the functions onto the hardware architecture. (fig 7)

With regards to claim 15, Shirane et al. (USPN 6,161,071) teaches the particular values are classified among at least one of classes of:

- cut bus;
- corrupted frame;
- short circuit applied to a wire;(col. 13, lines 3-4)
- wrong contact applied to a connector of a strand, sensor, actuator or calculator;

and execution fault applied to a microcontroller. (fig 18)

With regards to claim 16, Shirane et al. (USPN 6,161,071) teaches a an operational diagnosis for a service, the functional particular values associated with sensors, actuators, and functions executing the service having been listed for at least one data flow between two functions, or between a sensor and a function, or between a function and an actuator, for which no functional particular value is defined for the flow, if an operational particular value is defined, then a new functional particular value is automatically determined for this at least one data flow. (Fig 14)

With regards to claim 17, Shirane et al. (USPN 6,161,071) teaches a undiagnosed feared incidents are listed to construct an analysis of functional safety of the functional architecture. (81;fig 16)

With regards to claim 18, Shirane et al. (USPN 6,161,071) teaches a hardware architecture composed of calculators, networks, signal lines, and connectors, and mapping of functions onto the hardware architecture, the particular values and feared incidents are listed according to the method, to deduce an analysis of functional safety of the resulting functional architecture. (fig 12& 16)

Applicant's specification states "design of electronic systems is the analysis of functional safety, comprising identifying feared incidents *such as* a burst tire, a functional fault of a sensor essential to a critical function, a functional fault of an actuator, *such as* a brake actuator, in order to improve the safety and to specify reduced modes of operation if necessary". The terminology used in the specification does not provide a special meaning or limit the meaning of functional safety. Therefore interpreted broadly but within its plain meaning.

With regards to claim 19, Shirane et al. (USPN 6,161,071) teaches a the architecture comprises an architecture with which a vehicle can be equipped. (col. 1, lines 13-15)

With regards to claim 20, Shirane et al. (USPN 6,161,071) teaches an analysis of feasibility and/or susceptibility to failure of functioning of the architecture and of establishment of an output indicating the feasibility and/or susceptibility to failure. (52,53,81;fig 16)

With regards to claim 21, Shirane et al. (USPN 6,161,071) teaches a commercial article provided with a computer-readable memory, a program executable by a computer being recorded in the memory for diagnosis of functional faults of a functional architecture, the program including encoding for:

i) determining and listing particular values corresponding to functional faults of sensors(4) and actuators(3); ; (Col.12, lines 62-64)

ii) determining and listing particular values permitting propagation of information relating to these faults across the functional architecture; (Col. 13, lines 1-5)

iii) forming the functional diagnosis of the service as a function of the lists obtained from the determining (i) and (ii); (Col. 13, lines 7-20)and

iv) recording the particular values and their propagation on a memory for a tool provided for validation of the architecture. (Col. 13, lines 33-35)

With regards to claim 22, Shirane et al. (USPN 6,161,071) teaches a data-processing tool programmed for the diagnosis of functional faults of a functional architecture. (1; figures 1&11)

With regards to claim 23, Shirane et al. (USPN 6,161,071) teaches a data-processing tool programmed for the diagnosis of functional faults of a functional architecture by using the commercial article(program).(Col. 7, lines 4-6) (col. 8, lines 64-67)

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Felke et al. (USPN 7,260,505) teaches a method and apparatus for developing fault codes for complex systems based on historical data, Meri et al. (USPN 5,951,619) teaches a method and device for controlling an actuator, and Shuman et al. (USPN 6,161,071) teaches a method and system for an in-vehicle computing architecture.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

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10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Aditya Bhat
December 23, 2007